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10/708,920	03/31/2004	Bruce G. Woodward	SYB/0106.01	2919
31779 7550 0508/2008 JOHN A. SMART 708 BLOSSOM HILL RD., #201 LOS GATOS, CA 95032-3503		EXAMINER		
		MADAMBA, CLIFFORD B		
			ART UNIT	PAPER NUMBER
			3692	
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			05/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.	Applicant(s)	
10/708,920	WOODWARD ET AL.	
Examiner	Art Unit	
CLIFFORD MADAMBA	3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS,

- WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

# Attachment(s)

1)	Notice of References Cited (PTO-892)	
2)	Notice of Draftsperson's Patent Drawing Review (PTO-948)	
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Paper No(s)/Mail Date \_\_\_\_\_.

4) 🔲	Interview Summary (PTO-413)
	Paper No(s)/Mail Date
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6) Other: \_

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#### DETAILED ACTION

#### Status of Claims

- 1. This action is in reply to the remarks and amendment filed on February 1, 2008.
- 2. Claims 1-24 are currently pending and have been examined.

## Claim Objections

3. Claim 23 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Article of manufacture claim 23 can be infringed without necessarily infringing method claim 1.

## Response to Arguments

 The following applicant's arguments filed on February 1, 2008 have been considered but are not persuasive.

With respect to claims 1, 4-5, 7-8, 10-16 and 18-24 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,1261,139 to Win (hereinafter "Win") in view of U.S. Published Application 2002/0029339 of Rowe (hereinafter "Rowe"), the Applicant argues the following:

The Applicant argues that Win makes no mention whatsoever of financial transactions or of privileges and limitations for performing financial transactions. The Examiner respectfully

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disagrees. Win discloses a method comprising storing information that defines administration roles, that associates a user with one or more of the administration roles, and that associates each administration role with one or more administrative privileges (Abstract). The invention relates to methods, apparatus, and products for managing and administering a system for facilitating secure and selective access to network resources based on a role of a user of the resources (Column 1, lines 18-24). Win goes on to define the administration of privileges as follows: "An administrative privilege authorizes at least one administrative function. When the user requests the execution of an administrative function, the request is honored only when one of the user's administrative roles includes an administrative privilege that authorizes the requested administrative function." (Abstract).

Win further discloses rules for defining roles for users when working for an organization as follows: "A Role may reflect a relationship of a User to the organization (employee, customer, distributor, supplier), their department within an organization (sales, marketing, engineering) or any other affiliation or function...that defines their information needs and thus their access rights or privileges...In some embodiments, the term User Type or Person Type refers to employees, directors, officers, contractors, customers, distributors, etc., and Role refers to a job function such as sales representative, financial analyst, etc." (Column 5, lines 2-8 & lines 18-21). Thus, as the disclosure described by Win above pertains to the usage of administrative privileges and authorizations with regard to the performance of specific functions within an organization, and, as such functions includes the user role of a financial analyst implicitly performing a finance-related function, it is therefore clear that the limitation of privileges and limitations for performing financial transactions is taught by Win.

The Applicant further argues that Win's access control system does not include a hierarchical entitlement structure with inheritance. The Examiner respectfully disagrees. Win discloses a mechanism for governing access to information resources in which selective access is given to particular users (Column 2. lines 25-27) wherein the administration of access control to

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resources is selectively delegated to multiple administrators (Column 2, lines 35-36). The selective delegation of access privileges by itself denotes a hierarchical structure within an organization where access is granted to some and not to others depending on the relationship of a user with an organization and the roles played within the organization as follows: "User are individuals who have a relationship with an organization and play various roles, and are registered in the system." (Column 4, lines 22-25). "Roles are defined by information identifying a name of a role and by a functional group in which the role resides. A functional group is often a department in which similar function exists. Examples of functional groups are Marketing, Sales, Engineering, Human Resources, and Operations. In some embodiments, the term User Type or Person Type refers to employees, directors, officers…etc." (Column 5, lines 12-21).

Win further discloses the passing on or "inheriting" of access or entitlement privileges within an organization with the following example: "Any user who is assigned the role of "Sales Manager" in the future will automatically have access to the "National Sales Report" resource. If the administrator later un-assigns "Sales Manager" from the "National Sales Report" resource, then all users associated with the "Sales Manager" role will automatically lose access to the resource." (Column 18, lines 25-34). Win clearly teaches the limitation comprising a hierarchical entitlement structure with inheritance.

The Applicant further argues that although Rowe mentions the word "limit" it does not include features for defining and enforcing limits and that Rowe's "value limit" is a single value limit associated with a given financial account (e.g., bank account) and is not a limit which is tied to a user's role. Additionally, the combined references do not include any teaching of defining both per transaction limits and cumulative limits over a period of time. The Examiner respectfully disagrees. Rowe discloses wherein both transaction limits as well as cumulative limits are established for a financial transaction as follows: "In a step S1e, the account provider assigns the account with a maximum funds value or value limit... Most often, the maximum value will comprise the amount of an initial deposit into the account by the customer." (Paragraph 40). In

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this case, a deposit into the account is allowed to accumulate up to the maximum deposit limit ("cumulative limit") set by the account provider for the account. Also, the maximum number of transactions permitted ("per transaction limit") is limited only by the number of deposit transactions necessary to fund the account up to the maximum amount permitted for the account.

Rowe also teaches wherein transaction limits are imposed by the account provider as follows: 
"This method comprises the steps of providing customer data to the account provider, 
establishing an account type, assigning a value limit for the account, depositing funds in the 
financial account in an amount not exceeding the value limit, assigning the financial account an 
expiration date after which access to the financial account is generally prohibited by a user..."

(Abstract). In this case, the expiration date set by the account provider for transacting with the 
financial account serves the same purpose as limiting the number of transactions permitted for 
the account.

In another instance, Rowe discloses wherein transaction limits and cumulative limits for the account provider to follow are set by the user of the account for as follows: "The customer may arrange the account such that funds are debited and transferred to the charity [or any other account] at one or more predetermined times and for one or more predetermined amounts." (Paragraph 35). In this case, an account is permitted to be transacted upon only during the periods or times set for transacting whereas the maximum amount(s) permitted during the processing of the account is limited by the user.

The Applicant further argues that Rowe makes no mention of roles with permissions relating to the type and amount of financial transactions that may be performed by users having such roles. The Examiner respectfully disagrees. The Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention when there is some teaching, suggestion, or motivation to do so found either in the

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references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Win discloses wherein roles and permission privileges govern access to resources and functions within an organization which may include financial transactions (Column 5, lines 2-8 & lines 18-21). In a related endeavor, as discussed in the previous argument, Rowe discloses wherein limits are set for transacting in a financial account as follows: "This method comprises the steps of providing customer data to the account provider, establishing an account type, assigning a value limit for the account, depositing funds in the financial account in an amount not exceeding the value limit, assigning the financial account an expiration date after which access to the financial account is generally prohibited by a user..." (Abstract). As such, both Win and Rowe combined disclose the limitation wherein roles with permissions relating to the type and amount of financial transactions may be performed by users of the account.

With respect to claims 2-3, 6, 9 and 17 rejected under 35 U.S.C. 103(a) as being unpatentable over Win (above) in view of Rowe (above), further in view of U.S. Patent 6,202,066 to Barkley (hereinafter "Barkley"), the Applicant argues the following:

The Applicant further argues that Barkley's bottom-up approach to inheritance teaches away from Applicant's top-down inheritance methodology in which lower level entitlement groups inherit permissions from their parents subject to restrictions on such inherited permissions. The Examiner respectfully disagrees. Barkley discloses wherein permissions are inherited by an entitlement group from its parent entitlement group in a hierarchical entitlement structure as follows: "The capability for one role to inherit another role – that is, for example, while members of "manager" have their own permissions, they may also inherit those of "subordinate" – is a common feature of RBAC models. Such a "role hierarchy" is implemented by a strict partial ordering on the set of roles. One can think of role inheritance as the capability for one role to be

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authorized for (or "included in") another role." (Column 9, lines 48-55); "Similarly, the members of branch\_manager have permission to read the accounts directory and account files, and to read and delete suggestion files, as noted above, while the members of employee have permission to read all employee files, but do not have permission to access files or directories associated with Object Access Type accounts." (Column 12, lines 7-12). As such, Barkley's approach to inheritance describes an inheritance structure wherein roles occupying a higher level in the organization (e.g. "branch\_manager") are permitted greater access privileges compared to roles occupying lower levels within the same organization (e.g. "members of employee") whose access privileges are more restricted. Thus Barkley's inheritance approach teaches a "top-down" inheritance methodology.

The Office has thus given consideration to the remarks and amendments made to the pending set of claims, however, they are non-persuasive. Therefore, the rejection provided below for the current listing of claims is maintained.

#### Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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 Claims 1, 4-5, 7-8, 10-16 and 18-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Win, U.S. 6,161,139 ("Win"), in view of Rowe, U.S. Pub 2002/0029339 ("Rowe").

- 7. With regard to claim 1, Win teaches the limitation of a computer-implemented method for specifying and enforcing entitlements for performance of financial transactions, the method comprising:
  - providing a hierarchical entitlement structure with inheritance for specifying entitlements for performing financial transactions (column 4, lines 22-26; column 5, lines 7-8);
  - in response to a particular user request to perform a financial transaction at runtime, identifying the particular user's membership in a certain entitlement group (column 5, lines 45-55);
  - determining whether to allow the particular user to perform the financial transaction based on permissions and limits of said hierarchical entitlement structure applicable to the particular user's performance of the financial transaction (column 4, lines 15-18);
  - receiving user input for defining a plurality of entitlement groups of said hierarchical entitlement structure, wherein each entitlement group has specified permissions to perform financial transactions (column 15, lines 15-21; column 4, lines 24-26).

Win doesn't explicitly teach the limitation comprising limits on performance of said financial transactions, and membership of each user. Rowe, however, makes this teaching (paragraph 12, lines 5-13; paragraph 14). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Rowe with those of Win as discussed above for the motivation of establishing entitlement to access the account (Rowe, abstract).

 With regard to claim 1, Win in view of Rowe teaches the limitation of claim 1 as described above. Win further teaches the limitation wherein said step of defining a plurality of entitlement

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groups includes defining permissions to access particular objects in a financial application (column 5, lines 22-29).

 With regard to claim 5, Win in view of Rowe teaches the limitation of claim 4 as described above. Win further teaches the limitation wherein said step of defining a plurality of entitlement groups includes defining permissions to perform functions on said particular objects (column 5, lines 22-32).

- 10. With regard to claim 7, Win in view of Rowe teaches the limitation of claim 4 as described above. Win doesn't explicitly teach the limitation wherein said limits comprise limitations on values of financial transactions to be performed. Rowe, however, makes this teaching (paragraph 12, lines 5-13, paragraph 14). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Rowe with those of Win as discussed above for the motivation of establishing entitlement to access the account (Rowe, abstract).
- 11. With regard to claim 8, Win in view of Rowe teaches the limitation of claim 4 as described above. Win doesn't explicitly teach the limitation wherein said step of defining a plurality of entitlement groups includes defining limits comprising a selected one of per-transaction limits and cumulative limits over a period of time. Rowe, however, makes this teaching (paragraph 12, lines 5-13; paragraphs 14 and 43). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Rowe with those of Win as discussed above for the motivation of facilitating a commercial transaction (Rowe, paragraph 14).
- 12. With regard to claim 10, Win in view of Rowe teaches the limitation of claim 1 as described above. Win further teaches the limitation wherein said step of defining a plurality of entitlement groups includes defining limits applicable to individual users (column 16. lines 59-67).

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13. With regard to claim 11, Win in view of Rowe teaches the limitation of claim 1 as described above. Win further teaches the limitation wherein said step of defining a plurality of entitlement groups includes defining limits applicable collectively to members of an entitlement group (column 16, lines 59-67).

- 14. With regard to claim 12, Win in view of Rowe teaches the limitation of claim 1 as described above. Win further teaches the limitation wherein said step of defining a plurality of entitlement groups includes defining limits applying collectively to a particular entitlement group and children entitlement groups of said particular entitlement group in said hierarchical entitlement structure (column 16, lines 59-67).
- 15. With regard to claim 13, Win in view of Rowe teaches the limitation of claim 1 as described above. Win doesn't explicitly teach the limitation further comprising tracking financial transactions performed for purposes of determining compliance with limits. Rowe, however, makes this teaching (paragraph 103, lines 1-9; paragraph 149, lines 1-9). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Rowe with those of Win as discussed above for the motivation of facilitating a commercial transaction (Rowe, paragraph 14).
- 16. With regard to claim 14, Win in view of Rowe teaches the limitation of claim 13 as described above. Win doesn't explicitly teach the limitation wherein said step of tracking financial transactions performed includes maintaining running total values of financial transactions performed in cache for improved performance. Rowe, however, makes this teaching (paragraph 103, lines 1-9; paragraph 149, lines 1-9). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Rowe with those of Win as discussed above for the motivation of storing account information and receiving and transmitting account data such as data representing fund transfers and the like (Rowe, paragraph 103, lines 1-4).

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17. With regard to claim 15, Win in view of Rowe teaches the limitation of claim 14 as described

above. Win doesn't explicitly teach the limitation wherein said step of determining whether to allow

the particular user to perform the financial transaction includes determining whether any limits have

been exceeded based on the running total values and the value of the financial transaction requested

by the particular user, Rowe, however, makes this teaching (paragraph 103, lines 1-9; paragraph 149,

lines 1-9). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Rowe with those of Win as discussed above for the motivation of facilitating a

commercial transaction (Rowe, paragraph 14).

18. With regard to claim 16, Win in view of Rowe teaches the limitation of claim 1 as described

above. Win further teaches the limitation further comprising: maintaining permission information for

entitlement groups in the hierarchical entitlement structure in cache to improve system performance

(column 2, lines 60-67; column 3, lines 1-7).

19. With regard to claim 18, Win in view of Rowe teaches the limitation of claim 1 as described

above. Win further teaches the limitation wherein permissions provided to an entitlement group include permissions to administer a certain other entitlement group (column 2, lines 35-43; column

24, lines 39-40).

20. With regard to claim 19, Win in view of Rowe teaches the limitation of claim 18 as described

above. Win further teaches the limitation wherein permissions to administer a particular entitlement

group include modifying permissions of said certain other entitlement group (column 2, lines 25-43).

21. With regard to claim 20, Win in view of Rowe teaches the limitation of claim 18 as described

above. Win further teaches the limitation wherein said permissions to administer a certain other

entitlement group are subject to limitations defined for the entitlement group having said permissions

to administer (column 24, lines 39-40; column 16, lines 59-64).

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22. With regard to claim 21, Win in view of Rowe teaches the limitation of claim 1 as described above. Win further teaches the limitation wherein permissions provided to an entitlement group include permissions to extend a certain other entitlement group (column 15, lines 63-67).

- 23. With regard to claim 22, Win in view of Rowe teaches the limitation of claim 21 as described above. Win further teaches the limitation wherein permissions to extend a certain other entitlement group include permissions to define a child entitlement group of said particular entitlement group (column 16, lines 59-64).
- 24. With regard to claim 23, Win in view of Rowe teaches the limitation of claim 1 as described above. Win further teaches the limitation of a computer-readable medium having processor-executable instructions for performing the method of claim 1 (column 25, lines 46-52).
- 25. With regard to claim 24, Win in view of Rowe teaches the limitation of claim 1 as described above. Win further teaches the limitation of a downloadable set of processor-executable instructions for performing the method of claim 1 (column 25, lines 16-32).
- Claims 2-3, 6, 9 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Win,
   U.S. 6,161,139 ("Win"), in view of Rowe, U.S. Pub 2002/0029339 ("Rowe"), and further in view of
   Barkley, U.S. 6,202,066 ("Barkley").
- 27. With regard to claim 2, Win in view of Rowe teaches the limitation of claim 1 as described above. Win doesn't explicitly teach the limitation wherein said hierarchical entitlement structure provides that a given entitlement group inherits permissions provided to its parent entitlement group in said hierarchical entitlement structure. Barkley, however, makes this teaching (column 9, lines 48-

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30.

60). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Barkley with those of Win as discussed above for the motivation of knowing whether access is provided as a result of the permissions defined for the role or group itself or is based on permissions associated with inherited roles or groups (Barkley, column 10, lines 1-4).

- 28. With regard to claim 3, Win in view of Rowe and further in view of Barkley teaches the limitation of claim 2 as described above. Win further teaches the limitation wherein said step of defining a plurality of entitlement groups includes restricting permissions inherited by an entitlement group from its parent entitiement group in said hierarchical entitlement structure (column 11. lines 39-43; column 13, lines 14-15).
- With regard to claim 6, Win in view of Rowe teaches the limitation of claim 4 as described 29. above. Win doesn't explicitly teach the limitation wherein at least some of said particular objects represent bank accounts. Barkley, however, makes this teaching (column 11, table 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Barkley with those of Win as discussed above for the motivation of effectuating bank policy (column 11, lines 60-61).
- With regard to claim 9, Win in view of Rowe teaches the limitation of claim 1 as described above. Win doesn't explicitly teach the limitation wherein said step of defining a plurality of entitlement groups includes defining permissions applying to a selected one of functions of a financial application and objects of a financial application. Barkley, however, makes this teaching (column 11, lines 57-67; column 12, lines 1-32). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Barkley with those of Win as discussed above for the motivation of implementing bank policy (Barkley, column 11, lines 57-59).

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31. With regard to claim 17, Win in view of Rowe teaches the limitation of claim 16 as described above. Win doesn't explicitly teach the limitation wherein said permission information is modeled as three-tuples representing negative permissions. Barkley, however, makes this teaching (column 11, lines 57-67; column 12, lines 1-32). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teaching of Barkley with those of Win as discussed above for the motivation of implementing bank policy (Barkley, column 11, lines 57-59).

# Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}{2}$ 

directed to Clifford Madamba whose telephone number is 571-270-1239. The examiner can normally

be reached on Mon-Thu 7:30-5:00 EST Alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz

Abdi, can be reached at 571-272-6702. The fax phone number for the organization where this

application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be obtained

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786-9199 (IN USA OR CANADA) or 571-272-1000.

Clifford Madamba Patent Examiner

May 1, 2008

/Susanna M. Diaz/

Primary Examiner, Art Unit 3692